

Multilingualism and Language Change in New York City: Insights from the Corpus of New York City English

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Language variation and change

- ***One goal of linguistics:*** More predictive models of variation and change.

- (1) *car***r**: r ~ 0
- (2) a. Obelix **lo** quiere comer.
 Obelix it want.3SG eat.INFIN
 ‘We want to see it.’
 b. Obelix quiere comer**lo**.
- (3) a. Asterix **said**, “Shut up.”
 b. Asterix **was like**, “Shut up.”

Multilingualism and language change

- Linguists have long known that multilingualism can shape language change, and indeed many features of NYC English plausibly related to its multilingual past.
 - ***Yiddish:*** *schlep, I'm here since Tuesday.*
 - ***Spanish:*** *bodega, What happened?*
- But the conditions under which multilingualism can shape change remain very poorly understood.
- Particularly challenging is the relationship between L2 learning effects, and social indexical effects.

Vowel change

- Here, we focus on change in two vowel features of NYC English, for two reasons.
- First, they're an easy, plentiful source of good quality data.
- Second, recent literature has suggested effects of ethnicity on vowel change (Labov 2001, Hall-Lew 2009).

All speakers who are socially defined as white, mainstream, or Euro-American, are involved in the [sound] changes to one degree or another. But for those children who are integral members of a sub-community that American society defines as non-white Black, Hispanic, or native American the result is quite different. No matter how frequently they are exposed to the local vernacular, the new speech patterns of regional sound change do not surface in their speech (Labov 2001:506).

Main claims and outline:

- **Main claims:** Preliminary results from two studies suggest that multilingualism may be shaping current changes in the NYCE vowel system.
- **Outline:**

Part 1: Introduction

Part 2: The “low-back merger” (homophony judgments)

Part 3: Short-a (production)

Part 4: Conclusion

Vowel boot camp

- Vowel quality determined by difference in place of articulation of tongue body.
- When the place of articulation of two vowels is close they can be misperceived as a single vowel category, and we refer to this as a “merger”. Do the following sound the same to you?

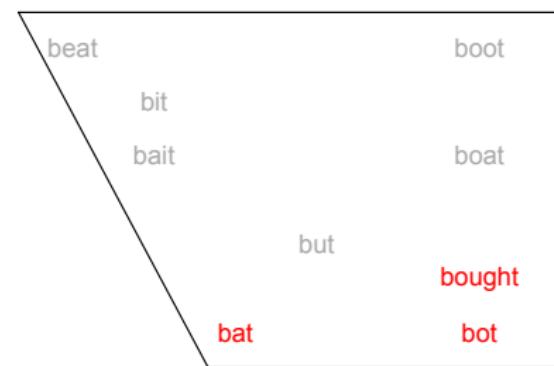


Figure 1: Place of articulation of vowels in Std. Am. English

- (4) *Mary, merry, marry*
(5) *cot, caught*

The low back vowel merger

- The low back merger (LBM) is spreading in N. Am. (Johnson 2007, Stanford et al. 2012). Historically, NYC has resisted (Newman 2014, 2016).
- Given previous work suggesting that language contact may facilitate the LBM (Herold 1990, Johnson 2007), we might expect diffusion of the LBM in New York City English (NYCE), particularly in bilingual communities.

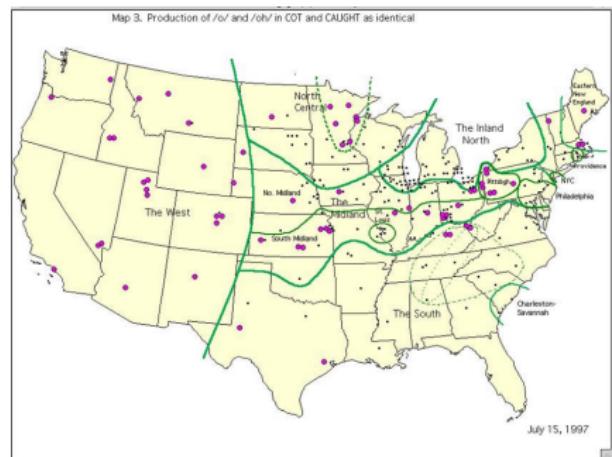


Figure 2: The low back merger in N. America

Method

- Participants were 782 self-described native speakers of NYCE (resident \leq age 5) ages 18-91, 475 Women, 1 genderqueer, 306 Men. Data gathered by UG Socioling. students at Queens College in 2016.
- A “same” or “different” homophony judgment questionnaire with 7 minimal pairs following Johnson’s (2007) method:

- (6) Emily CAUGHT the ball. A small bed is called a COT.
- (7) In singing you go “fa la la la LA”. Don’t break the LAW.
- (8) The boys’ name is DON. The girls’ name is DAWN.
- (9) A boy named OTTO. Another word for car is AUTO.
- (10) A nickname for Molly is MOLL. You shop at the MALL.
- (11) Students learn what they are TAUGHT. Eat a tater TOT.
- (12) The clock goes tick TOCK. Teenagers like to TALK.
- (13) Press the button to PAUSE. Cats lick their PAWS. [Control]

Results

Variable		Coefficient	N	Raw mean
Intercept (at age 20)	p<.0001	0.611	519	0.678
Age (per year)	p<.0001	+0.008		
Same-sex parent	p<.0001			
Native NYCE		+0.051	205	0.780
Non-Native		-0.051	314	0.611
Gender	p=.7260			
Male		+0.020	209	0.681
Female		-0.020	310	0.676
Ethnicity (women)	p<.0001			
Black		+0.171	39	0.808
White		+0.144	122	0.813
Hispanic		-0.023	74	0.575
East Asian		-0.063	64	0.509
South Asian		-0.229	11	0.338
Ethnicity (men)	p<.0001			
Black		+0.061	37	0.730
White		+0.022	74	0.739
East Asian		-0.022	43	0.609
Hispanic		-0.023	42	0.639
South Asian		-0.038	13	0.582

Table 1: Summary of a model of by-speaker proportions of “different” responses

Age effects

- Younger speakers favor the merger.

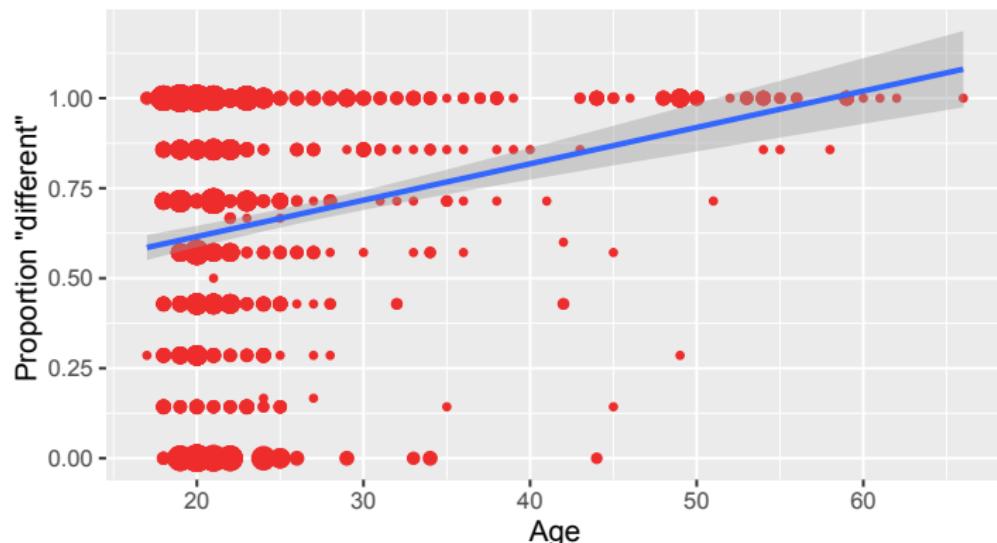


Figure 3: Proportion “different” responses by participant age

Parental input and Ethnicity*Gender

- Participants with a same-sex parent who is a native NYCE-speaker disfavor the merger. An opposite-sex native-NYCE parent does not contribute a significant additional effect. (See also Johnson 2010.)
- E. Asians, S. Asians and Latinos favor merger. The effect is stronger for women.

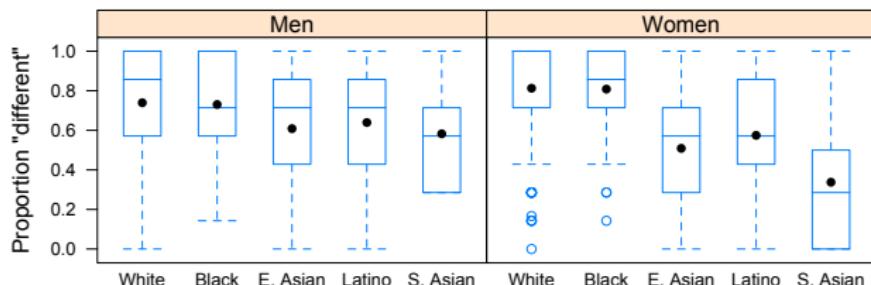


Figure 4: Proportion “different” responses by participant age

Pockets of merger

- 11 white subjects in Ridgewood, Queens show much less distinction (31%) than other white Queens subjects (83%). Largely Polish, though Poles elsewhere do not show higher levels of merger (cf. Herold 1990, Newlin-Lukowicz 2015).
- Some tendency toward merger in Flushing as well.

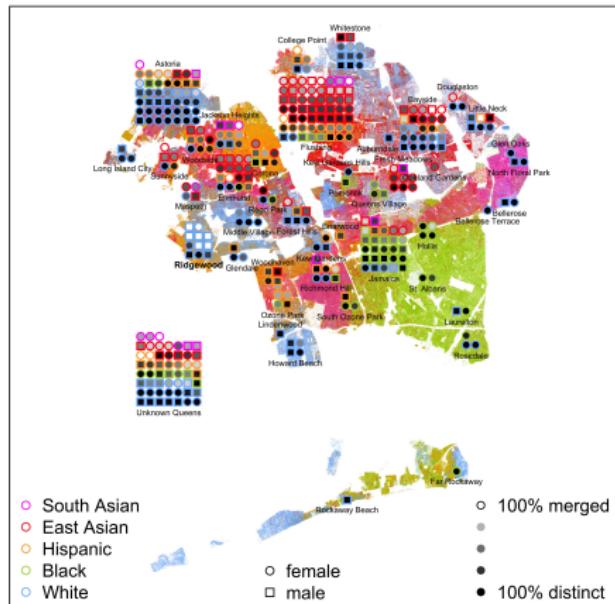


Figure 5: Neighborhood effects

Summary: Low back merger

- Change in progress toward merger.
- Change may be facilitated by multilingualism—subjects with a same-sex parent who is not a native NYCE speaker favor the merger. That is, participants who, as kids, didn't have the distinction in learning input from parents, are less likely to acquire the distinction.
- There are also effects of ethnicity, with E. Asians, S. Asians and Latinos favoring the merger.

Short-a variation in NYCE

- Pick a favorite New Yorker you know.
How does he/she say the vowels in
the following pairs
of words?
 - i. *bag* ~ *back*
 - ii. *cab* ~ *cap*
 - iii. *ask* ~ *aks*



Figure 6: Some native NYCE speakers

Introducing short-a variation

- The stereotypical NYC variant involves vowel raising.
- In the traditional system, this is subject to a complex system of constraints (Babbitt 1896, Labov 2006, 2007, Becker 2010).

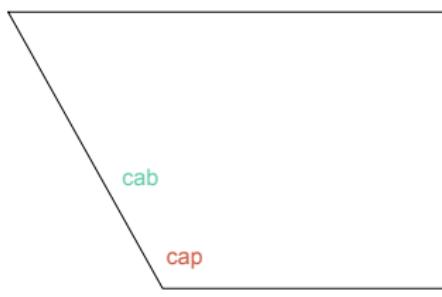


Figure 7: Short-a raising

p		t	č	k
b		d	đ	g
m		n		ŋ
f	θ	s	š	
v	ð	z	ž	
		l	r	

Figure 8: Following sounds conditioning a-raising, inside box

Variation and change in the short-a system

- Payne (1976) noted that the short-a system was not fully acquired by native speakers whose parents were *themselves* not native speakers.
- Becker & Wong (2007) report data suggesting that this complex system is undergoing change toward a simpler *nasal* system.
 - *raised*: before a nasal sound, e.g. m, n.
 - *un-raised*: elsewhere.

Method

- Preliminary results from CoNYCE.
- 21 native speakers of NYCE. 12 women; 9 men.
 - 6 from Bronx Oral History project (recorded 1982).
 - 15 from data gathered in Spring of 2015 by UGs at CSI.
- Year of birth range: 1906-1995.
- Data transcribed by UG volunteers.
- Interviews eliciting narratives about family history, childhood, NYC communities.
- Data available so far poorly distributed by ethnicity. All of European ancestry except for one Latina and one Arab-American.

Data and Method

- Differences in production inferred acoustically, via spectrograms
- Results reported are normalized formant values.

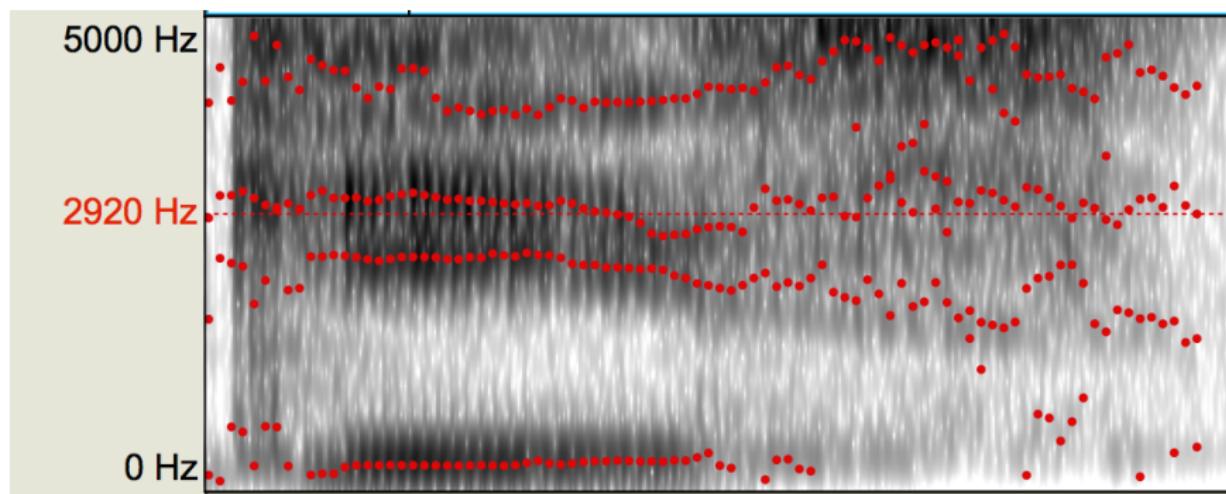


Figure 9: Spectrogram of *geese*

Results: Age

- No age effects.

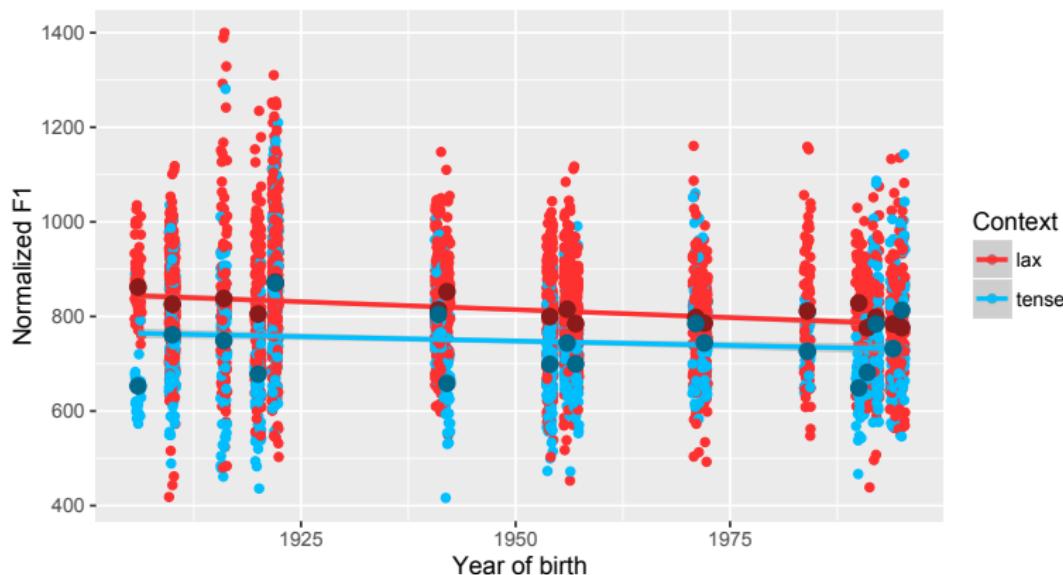


Figure 10: F1 for two contexts by year of birth

Parental input

- Speakers with at least one native NYCE-speaking parent tend toward the traditional system, but not speakers with two non-native parents:

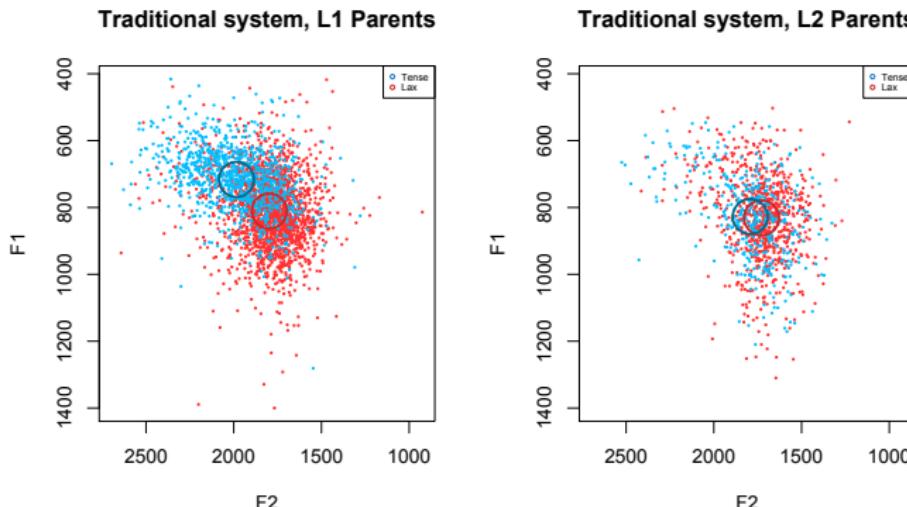


Figure 11: Speakers with a native NYCE-speaking parent

Parental input

- Some participants with two L2 parents tend toward the nasal system.

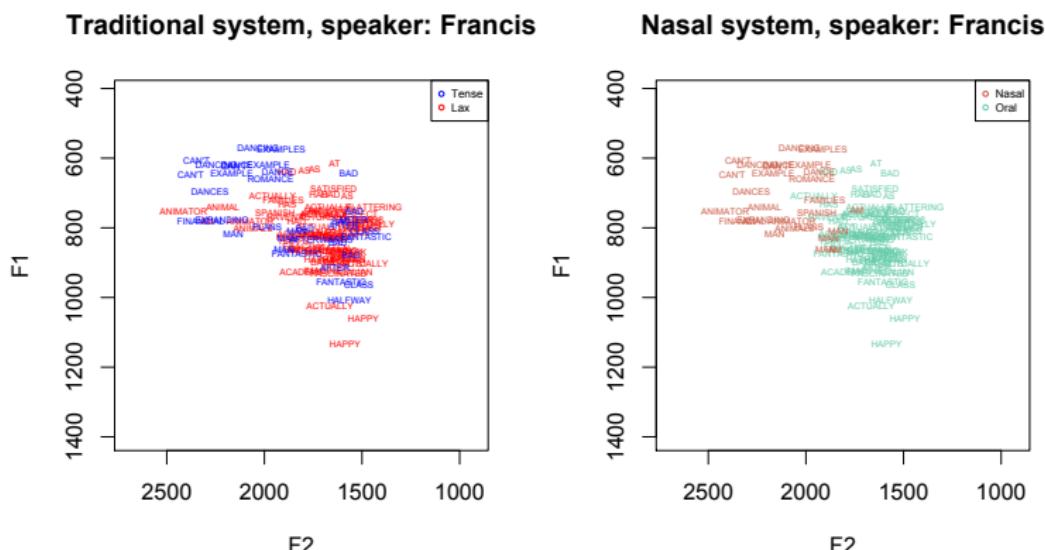
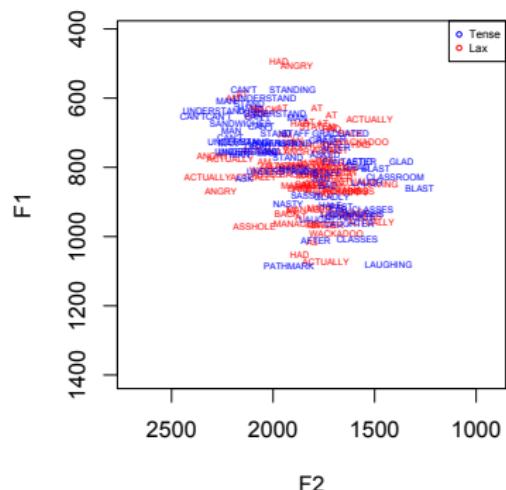


Figure 12: Short-a tokens for Alicia Francis

But an age effect, too?

- But some younger speakers with *L1* parents tend toward the nasal system, too, suggesting change.

Traditional system, speaker: Messina



Nasal system, speaker: Messina

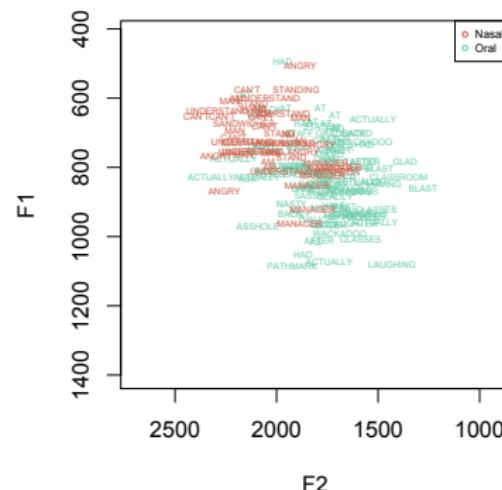


Figure 13: Short-a tokens for Anne Messina

Main points

- Preliminary results from two studies suggest that multilingualism may be shaping current changes in the NYCE vowel system.
- Future challenges:
 - Larger sample
 - Social indexical effects on change?
 - Change in other vowel features, esp. GOAT, GOOSE-fronting.

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